Environment

Nova Scotia Environment
Annual Accountability Report for the Fiscal Year 2008-2009

Table of Contents

1. Accountability Statement 3
2. Message from Minister 4
3. Introduction 5
4. Departmental Progress and Accomplishments 6
5. Financial Results 18
6. Measuring Our Performance 19
Appendix A – Organizational Chart 32
Appendix B - Agencies, Boards, Commissions and Tribunals 33

1. Accountability Statement

The accountability report of Nova Scotia Environment for the year ended March 31, 2009, is prepared pursuant to the *Provincial Finance Act* and government policies and guidelines. These authorities require the reporting of outcomes against Nova Scotia Environment's business plan information for the fiscal year 2008/09. The reporting of the department's outcomes necessarily includes estimates, judgments and opinions by Nova Scotia Environment management.

We acknowledge that this accountability report is the responsibility of department management. The report is, to the extent possible, a complete and accurate representation of outcomes relative to the goals and priorities set out in the department business plan for the year.

_____

Minister

_____

Deputy Minister

2. Message from Minister

I am pleased to provide you with highlights of Nova Scotia Environment's achievements for the fiscal year 2008/09 through the latest Accountability Report.

On April 1, 2008, Nova Scotia Environment and Labour divided into two new departments, Nova Scotia Environment and Nova Scotia Labour and Workforce Development. As part of this change, the responsibility for this province's response to the challenge of Climate Change has moved from the department of Energy to Nova Scotia Environment. This new department is another example of the Province of Nova Scotia's commitment to environmental protection and sustainability.

The new department, NSE, has five core business areas:

1. Environmental and Natural Areas Management
2. Environmental Monitoring and Compliance
3. Climate Change
4. Competitiveness and Compliance
5. Environmental Agencies, Boards and Commissions

The department made commitments in each of its core business areas in its Business Plan for the last fiscal year, which ended on March 31, 2009. I am pleased to say the department has achieved or made significant progress on all of them.

Environment's commitment to working better with its stakeholders and other government departments is reflected in the collaborative approaches taken on broad, cross-cutting issues such as the *Environmental Goals and Sustainable Prosperity Act, Water Resource Management Strategy,* Better Regulation Initiative, and the Environmental Public Health Initiative . On these and other such issues, the department recognizes that integrated action is key to achieving real progress.

I believe in the importance of accountability to Nova Scotians, and I believe this report shows significant progress on achieving or completing our significant business goals.

Sincerely,

Honourable Sterling Belliveau
Minister of Environment

3. Introduction

This Accountability Report provides information on Nova Scotia Environment (NSE)'s performance in relation to the goals, priorities, performance targets, and budget expenditure targets presented in its 2008-2009 business plan.

One of the targets that NSE has surpassed this year involves the number of categories of materials banned from disposal. This is another measure of Nova Scotia's success in keeping materials out of landfills and using them as resources. Disposal bans require that waste materials are separated at source through municipal and private programs and also encourage the development of business opportunities in the province by ensuring a steady feedstock of "waste resources" for input into manufacturing. For example, Nova Scotia's ban on the disposal of corrugated cardboard ensures a constant supply of fibre for the production of linerboard by Minas Basin Pulp and Power. NSE had developed a target of having 21 categories of materials banned by 2010. In 2008/09, we added 4 new categories which means we met our 2010 target a year earlier than projected. The department continues to work on creating more categories in the coming years.

The Department continues to champion sustainable management and protection of the environment, natural areas and public health through various activities, including establishment of the Round Table on Environment and Sustainable Prosperity, working toward the development of a water resources management strategy, and strengthening our partnerships with other departments and industry to further implement objectives under the *Environmental Goals and Sustainable Prosperity Act.*

In 2008/09, with the addition of the Climate Change Directorate, NSE took significant measures addressing climate change, including: leading implementation of the Climate Change Action Plan that lays out a plan to reduce green house gases and sets a course to adapt to climate change; setting a clear path describing how we will meet our greenhouse gas targets; and providing federal funding support through ecoTrust for projects that will reduce greenhouse gases and other air emissions.

In 2008/09, the Competitiveness and Compliance Initiative continued implementation of its 4-year strategy. The strategy included choosing and designing quality tools, making it easier for business to achieve compliance, improving compliance with our regulatory programs, and continuous improvement of the department's regulatory programs.

More detailed information on the results achieved by NSE in 2008-2009 can be found in Sections 4 through 6 of this report which outlines the results achieved in each of NSE's core business areas; summarizes the financial results achieved in NSE for 2008/09; and presents the results achieved for the performance measures established for each of NSE's core business areas.

NSE's 2008/09 business plan is available on our website at:
http://www.gov.ns.ca/nse/pubs/docs/NSEBusinessPlan0910.pdf.

4. Departmental Progress and Accomplishments

NSE has five core business areas:

1. Environmental and Natural Areas Management
2. Environmental Monitoring and Compliance
3. Climate Change
4. Competitiveness and Compliance
5. Environmental Agencies, Boards and Commissions

There has been progress in each of the five core business areas in terms of achieving the strategic goals of NSE. Below is a detailed illustration of these achievements:

Core Business Area 1: Environmental Protection and Natural Areas Management (ENAM)

Strategic Goal #1: Promote sustainable management and protection of the environment, public health and natural areas through the establishment and achievement of aggressive environmental and resource management goals in the areas of air, water and land resource.

ENAM was responsible for a number of initiatives in 2008/09. Below is an accounting of these initiatives and the progress that has been made on each.

Water Resources

A. In consultation with Nova Scotians, NSE continued work on its target to have a Water Resource Management Strategy developed by 2010 to address security and sustainability of Nova Scotia's water supply to ensure long term prosperity of water-dependent industries and health of communities and ecosystems.

- Following the release of the discussion paper "Towards a Water Resources Management Strategy for Nova Scotia" in January 2008, NSE held fourteen public workshops across the province in April and May 2008 with over 210 participants. Over 120 written submissions were received during the February 1 to June 30, 2008 public consultation period. The public consultation comments were compiled in a document entitled "What we heard: A public feedback report" which was released in September 2008. The report condensed the feedback into 8 key themes that the water strategy should address. In December 2008, the Interdepartmental Water Management Committee (IWMC) overseeing the development of the strategy approved a draft vision, mission and set of 5 strategic goals. Cross-departmental working groups have been established for each of the strategic goals and a 1 ½ day workshop was held in February 2008 to determine the objectives and actions required to achieve the goals. In 2009/10, NSE will again consult with the public and stakeholders to achieve its target of having a strategy finalized by 2010.

- NSE is currently running a year long pilot Water Well Construction Inspection Program, based on recommendations from an inter-departmental working group. The program was launched in Spring 2008 and a recommendation report will be developed in Spring 2009. The recommendations will be incorporated into Nova Scotia's Water Resource Management Strategy.

B. In 2008/09, NSE continued to work with municipalities to achieve full compliance with its target of having all municipal public drinking water supplies meet the provincial treatment standards by 2008.

- Approximately 60% of municipal drinking water supplies met the new treatment standards in 2008 which accounted for 90% of the population served by municipal water. Reasons for non-compliance included delays in securing infrastructure funding for facility upgrades, construction delays, complex land purchases and other unforeseen circumstances. For those that did not meet the standards, NSE worked with municipalities to develop action plans to bring them into compliance.

C. NSE implemented year three of the Environmental Home Assessment Program focused on assessing well water, septic systems and oil tanks in private homes and providing financial assistance to qualified Nova Scotians to support the repair or replacement of failed septic systems, while dedicating new resources to help Nova Scotians on private wells to protect their health and the health of their families.

- In year three of the Environmental Home Assessment Program a total of 1700 home assessment visits were provided across rural Nova Scotia and 118 septic system repair grants were provided to lower income families, assisting rural Nova Scotians with operation and maintenance of their septic systems, water wells and oil tanks. The program will continue to be delivered in the upcoming year based on positive client response.

D. NSE continued work on its target to create a policy to prevent net loss of wetlands by the end of 2009.

- In 2008/09, this included:
    - Working with other departments to guide development of a government-wide Wetland Conservation Policy for Nova Scotia that includes provisions that will ensure no-net-loss.
    - Working with wetland staff from New Brunswick and Prince Edward Island to identify ways to harmonize the implementation of wetland programs in the Maritime provinces.
    - Working with a departmental committee to assist in the development of implementation tools to support the new policy.
    - Providing Wetland Information Sessions to the public
    - Consulting on the broader Water Resource Management Strategy

- In 2009/10, NSE plans to continue to consult internally and externally on the draft Wetlands Conservation Policy and move forward with implementation.

Land Resources

A. NSE continued work on our target of achieving a solid waste disposal rate of three hundred kilograms per person by 2015, by working with stakeholders to identify new approaches to product stewardship and best practices in solid waste management.

- A provincial product stewardship committee was established to provide advice to the Department on the development of new programs requiring industry to take physical and/or financial responsibility for the collection and recycling of waste materials. The Department also explored best management practices for construction and demolition waste, aimed at further increasing the diversion of these materials.

B. NSE continued its work on a comprehensive protected area system plan leading to protection of 12% of the province's land base.

- In 2008-2009 this included: holding public consultations on the commitment to designate lands at Ship Harbour, Long Lake, Blue Mountain-Birch Cove Lakes, and Shelburn River. In addition, the department continued to collaborate with the Colin Stewart Forest Forum in the development of a proposal to achieve the 12% goal while mitigating impacts on the forestry industry.

Core Business Area 2: Environmental Monitoring and Compliance

Strategic Goal #2: Promote the protection and responsible development of the environment through the delivery of programs, outreach services, environmental monitoring and compliance mechanisms.

Water Resources

A. NSE continued to work towards its target of having wastewater treatment facility discharges providing at least primary treatment by 2017.

- To achieve this target, NSE supported the finalization of the Canada-Wide Strategy for the Management of Municipal Wastewater Effluent which was endorsed by the Canadian Council of Ministers of the Environment (CCME) in February 2009. NSE will work with its partners to begin the implementation and development of baseline data for this strategy in 2009/10.

B. NSE continued to work with septage treatment facility operators to achieve our target of having all septage treatment facilities operated in accordance with the Guidelines for the Handling, Treatment and Disposal of Septage by 2011.

- Over the last two years, more than 90% of facilities across the province accessed funding through the Septage Treatment Assistance Program, with $1.9 million in funding provided to assist lagoon owners upgrading their sites. In addition to providing financial assistance, NSE will continue to foster the implementation of new and innovative technologies throughout the remainder of this four year program.

Land Resources

A. To achieve our target of developing regulatory tools to stimulate redevelopment of contaminated land and contribute to economic development by 2010, NSE engaged internal and external working groups and stakeholder committees on the development of contaminated site remediation and management regulations. These regulations will maintain or improve environmental protection while expanding investment and redevelopment opportunities.

B. NSE continued its work to ensure that the Sydney Tar Ponds and Coke Ovens Remediation Project, the largest contaminated site restoration ever undertaken, is carried out in compliance with all appropriate environmental approvals and laws.

Core Business Area 3: Climate Change

Strategic Goal #3: Provide leadership and coordination of Governments' response to the challenges of climate change.

In 2008/09, the Climate Change Directorate, in addition to the work on the specific targets in the business plan:

- Lead the implementation of the Climate Change Action Plan, which sets a clear path to reduce green house gases and sets a course to adapt to climate change

- Developed 14 adaptation actions/policies for inclusion in the 2009 Climate Change Action Plan

- Created an Atlantic body for coordinating regional adaptation efforts

- Developed a three year regional work-plan, the Atlantic Adaptation Collaborative, to manage flood, erosion, sedimentation and saltwater intrusion risks in vulnerable communities across Atlantic Canada.

- Funded a study lead by the Nova Scotia Fruit Growers Association which will allow them to develop a database of how different pear and apple varieties respond to changes in climate in order to understand which varieties may do better than others in future climate conditions.

- Organized a joint conference on adaptation with the Conference Board of Canada in March 2009 and a joint conference on adaptation with the Atlantic Region in April 2008.

A. NSE worked towards its commitment to have greenhouse gas emissions be at least 10 % below 1990 levels by 2020.

- The Department of Environment released a Climate Change Action Plan in January 2009. The plan includes over 60 actions around cleaner energy, energy efficiency, renewable energy, transportation, impacts and adaptation, and leadership and engagement, which will start the Province on the path to meet its commitment to reduce greenhouse gas emissions 10% below 1990 levels. The full Climate Change Action Plan can be downloaded from the Climate Change Directorate website www.climatechange.gov.ns.ca

- The Climate Change Action Plan calls for reductions in greenhouse gas and air pollutant emissions. The Department of Environment released a discussion document entitled: An Approach to Regulating Electricity Sector Greenhouse Gas Emissions and Air Pollutant Emissions in Nova Scotia. The province's proposed approach to capping emissions from the electricity sector was available for public review and comment until March 31, 2009.

B. Target: 18.5% of the total electricity needs of the Province will be obtained from renewable energy sources by the year 2013.

- This target has been made under the *Environmental Goals and Sustainable Prosperity Act*. It is mainly the responsibility of Department of Energy, however as with all EGSPA targets, government departments, including NSE, are working together to achieve it.

- There is ongoing research into the types and amounts of renewable energy needed to supplement our existing power grid in order to meet this ambitious goal. The Department of Energy has funded a wind integration study to look at how wind energy, which is not a constant, can be integrated into the current system. In addition, the Government has committed $5 million to an in-stream tidal energy project in the Bay of Fundy. Pending the completion of environmental assessments and permits, tidal energy devices could begin generating power by 2010.

C. Target: All new residential dwelling units constructed in the Province that are within the scope of Part 9 of the National Building Code of Canada will be required to display EnerGuide rating by year 2008.

D. Target: All new residential dwelling units constructed in the Province will be required to achieve an EnerGuide rating of 80, or meet energy conservation measures adopted in the

Nova Scotia Building Code Regulations made under the Building Code Act after January 2001.

- To achieve targets C&D, in 2008/09, Conserve Nova Scotia and Nova Scotia Labour and Workforce Development worked with the building industry. After consultations throughout 2008, government and the building industry developed an implementation plan that will almost triple the original scope of the EGSPA goals, and set energy efficiency standards for new homes at least one year early.

- The original intent was a phased approach to improve energy efficiency in new home construction in Nova Scotia. EnerGuide labelling was to serve as an educational tool for the building industry between December 31, 2008 and January 1, 2011, at which time it would be replaced with the more stringent requirement to meet a specified level of efficiency.

- As part of the new implementation plan, government will not make labelling a mandatory requirement, but instead encourage its use as voluntary tool to educate homeowners. The building industry, represented by the Nova Scotia Building Advisory Committee, has helped draft changes to the Building Code Act that cover energy efficiency standards for both new home construction, and for home renovations, and commercial buildings under 600 square metres. These changes will be in place one year early.

- To meet the new energy efficiency targets, builders will have both "performance" and "prescriptive" options. Under the performance-based option, the new home must achieve a minimum EnerGuide rating of 80, the equivalent energy efficiency of an R-2000 home. Under the prescriptive option, builders will use materials and techniques specified in the Code that are the equivalent of EnerGuide 80. These will be enforced by municipal building inspectors. These standards will also apply to additions and renovations.

- In 2011, standards with a similar objective will apply to large commercial buildings, a sector not covered in EGSPA. The cumulative effect of these improvements is to broaden the scope of the original EGSPA target from 5.1 per cent of greenhouse gas reductions to 14.3 per cent.

E. Target: adopt emission standards for greenhouse gasses and air pollutants from new motor vehicles by 2010.

- NSE and Conserve Nova Scotia have been working with the federal government to develop fuel consumption regulations that would take effect in the 2011 model year. Public consultations have been held, however the regulations have not been finalized. Nova Scotia is also working with the New England Governors-Eastern Canadian Premiers Association on this issue.

Core Business Area 4: Competitiveness and Compliance Initiative

Strategic Goal #4: Promote continuous improvement in the quality, coherence and effectiveness of our regulatory system to protect the environment in a manner that supports sustainable economic competitiveness.

A. In year four of its five year strategy, CCI continued to work to improve how we design, implement and evaluate our regulatory programs. CCI encourages and supports good regulatory practice through:

- Training on policy analysis, performance measurement and instrument selection. This training assists staff in complying with the corporate Regulatory Management Policy. In 2008-2009, 100% of all regulatory proposals in the department were in compliance with the Regulatory Management Policy. In 2008/09, the delivery of this training was transferred to Treasury and Policy Board; however NSE still provides assistance in the delivery of the training and serves as a resource for other departments on best practices in regulatory management.

- The department continued to work with the province's Better Regulation Initiative to reduce administrative burden and develop service standards. At the end of 2008/09, the department had a cumulative total reduction of 15.5% which is just below our target of 17%. Even though we are slightly below target for 2008/09, we are projected to meet our ultimate target of 20% by the end of 2009-10.

- The department continued delivering standardized foundation training for inspectors and investigators. By the end of 2008-2009, 94% of inspectors and investigators in the department were trained. We are well on our way to achieving our target of 100% trained by 2011.

- As a result of the Auditor General's recommendations in their 2007 report that NSE improve it's ability to track, manage and report on inspection and compliance activities, NSE was able to move forward with implementation of the Activity Tracking System. The system is currently undergoing testing and implementation of the system is scheduled for the July 2009 after which staff training will immediately commence. Implementation of the system has taken longer than expected because of technical problems encountered in the testing phase.

- The department continued to work on incorporating meaningful performance measures into our regulatory programs. We made significant progress in 2008/09, as 100% of our new regulatory programs have identified indicators of success.

B. In 2008/09, NSE continued to develop options for putting the environmental registry on-line.

- Work continues in order to provide the public with a central location on NSE's website for online access to records held in the Environmental Registry, which now includes well logs, pesticide applications approval database, boil order database, certified individuals database and the protected water areas designation regulations.

C. NSE continued to apply best practices for pollution prevention, green procurement, and sustainable transportation to departmental operations, with a specific focus in 2008-2009 on green procurement, both at the department and government-wide level.

- In partnership with Nova Scotia Economic and Rural Development (ERD), worked towards a government-wide sustainable procurement policy and supporting tools. Stakeholders were engaged in the summer of 2008 based on the Path to Sustainable Prosperity Discussion Paper. The policy is expected to be finalized and implemented in 2009/10. NSE worked with ERD staff to develop the policy, online sustainable procurement training, and a new sustainable procurement section of the ERD website to house supporting tools and resources.

- In addition to the action above, NSE also:

    - Co-led and supported MASH (Municipalities, Academic Institutions, School Boards and Hospitals) Sector Sustainable Procurement Network.

    - Provided advice and expertise to various category specific sustainable procurement initiatives, e.g. vehicles, office supplies, printing and publication, paint, promotional products, meetings and events, catering, and janitorial products.

    - Supported the Antigonish Sustainable Development Program

    - Produced a series of environmentally conscious shopping guides for Nova Scotians

    - Continued support to the departmental pollution prevention initiative and to the intergovernmental Rethink initiative

    - Supported business in their efforts to enhance environmental performance, accomplished through support of the Eco-Efficiency Centre

D. NSE continued to communicate best practices to companies and other departments in order to help them become more environmentally and economically sustainable;

- In an effort to assist other government departments in their efforts to incorporate environmental responsibility into their operations, NSE participated in the reThink multi-departmental committee and completed presentations on the department's pollution prevention initiative to Transportation and Infrastructure Renewal.

E. In 2008/09, NSE lead the Advisory Group on Radon (AGOR), the interdepartmental committee that developed Nova Scotia's plan to implement effective public health measures with respect to radon gas in anticipation of new federal radon gas guidelines.

- During this time, AGOR completed radon testing at approximately 2,000 public buildings, as part of a comprehensive radon testing program which aims to test all public buildings within 5 years. AGOR's communication initiatives during this period focused on reporting radon testing results to the public and providing advice to homeowners, through news releases and working with the province's Environmental Home Assessment Program. AGOR also worked with Dalhousie University to develop and deliver training programs on radon testing and mitigation to ensure that Nova Scotians will have access to qualified radon professionals.

F. NSE continued to support and participate with First Nations, municipalities and federal departments in the Collaborative Environmental Planning Initiative, the multi-participant process that is developing a management plan for the Bras d'Or Lake Watershed.

Core Business Area 5: Support for Agencies, Boards, Commissions and Tribunals

Strategic Goal #5: Plan and implement the effective and efficient operation of key oversight of environmental Agencies, Boards and Commissions that are established to provide a process for decisions, advice or public input. A list of the department's agencies, boards, commissions and tribunals is included in Appendix B.

A. NSE established a Minister's round table on environmental sustainability and worked with to re-invigorate the Environmental Trust Fund.

- The Round Table on Environment and Sustainable Prosperity was established to advise the Minister on issues related to environmental sustainability, providing a broad stakeholder perspective on environmental matters. The *Environmental Goals and Sustainable Prosperity Act* also gives the Round Table the specific responsibility of preparing an annual progress report to the Minister on the achievement of the goals set out in the Act. This will contribute toward informed decision-making on environmental policy matters that affect the well-being of Nova Scotians and the future sustainability of our province. This first annual report was completed by the

roundtable and can be found on NSE's website at http://www.gov.ns.ca/nse/egspa/docs/EGSPA2008ProgressReport.pdf

- The department continues to actively work toward securing long-term funding for the Environmental Trust. The Department of Justice is assisting with this by ensuring that monetary rewards gained from successful environmental convictions are forwarded to the fund. While the amounts are variable, it will allow some funding to become available into the future.

French Language Services

Mandate: Implement in collaboration with the Office of Acadian Affairs, NSE's multi-year action plan to enhance the department's capacity to deliver French language services to its clients. Priorities for 2008-2009 included:

A. Increasing employee awareness of the provincial government's commitment to provide French language services, and promote interest and involvement in service delivery;

- Throughout 2008/09, NSE continued to promote awareness and support employees interested in French language education via presentations and training provided through the Office of Acadian Affairs.

B. Exploring opportunities to address French language community needs; and

- NSE participated as a member of the Consultation Sub-committee to identify and prioritize community needs for French language services, and to build stronger relationships between the provincial government and Acadian and francophone community-based organizations.

C. Continuing to build departmental capacity to provide service in French through employee training in the French language.

- In 2008/09, 14 staff received French language training

- The department prepared reports and press releases in French and English, including the water strategy and the Climate Change Action Plan.

Strategic Human Resource Initiatives

Strategic Goal #6: Create a work environment that supports the attraction and retention of skilled and knowledgeable staff and builds human resource capacity in preparation for leadership roles within the department.

In 2008/09, with the creation of a stand-alone Department of Environment, the department took the opportunity to re-evaluate its strategic HR initiatives to ensure they still meet the needs of staff and lead to recruitment of new staff. This process began in the beginning of 2008/09 and a five year strategic plan for the department, which includes an HR strategy, was completed and introduced in January 2009. The HR component of the strategic plan is called the Winning Workplace Strategy. This strategy builds upon our past success with the former Nova Scotia Environment and Labour's Human Resource Plan and Initiatives and provides a blueprint for how we will continue to build capacity and develop our people at the new NSE.

As part of the Winning Workplace Strategy, NSE identified and implemented a new governance model that should make the implementation of the strategy more effective.

During this transition to a stand-alone department, NSE continued to focus on the 4 key areas of the previous Human Resource Strategy we shared with Labour: Career Planning, Recognition, Healthy Workplaces, and Diversity. With the transition NSE experienced the administrative and resource reallocation challenges that accompany any major transition. In light of this, not all initiatives planned for 2008/09 were accomplished. However, with the commitment of NSE staff progress was still made in each of the initiatives.

A. Career and Workforce Planning

The department continued to work on ensuring the implementation of the performance appraisal process, providing mentoring/coaching and career planning, providing development opportunities, promoting diversity and equality during the hiring process and human resource planning to address future staffing needs.

B. Employee Recognition

This initiative and the associated Recognition Committee managed the coordination and presentation of the Minister's Awards of Excellence event. The committee also continued to work on developing and promoting resources and tools for informal recognition practices within the department.

C. Healthy Workplaces

This initiative promoted the importance and value of work breaks and physical activity through two important activities: lunchtime intramural activities for staff and walking challenges. Activities of the committee also focused on promoting nutrition and healthy dietary (and environmentally friendly) choices at meetings, and supported corporate education and training for employees. Many events were held during national Healthy Workplace Month, including a walking challenge, healthy cooking classes, lunch and learns and physical lunchtime challenges with other departments. Many events were held in the regional offices throughout the province.

D. Diversity Management

The Diversity Committee focused on education and awareness activities and held events on cultural awareness, disability management and corporate resources available to support managers and staff. The department established representation for the department at the corporate Diversity Roundtable.

E. Leadership

NSE continued to provide new employee orientation programs and foundational management skills and training, recognizing employee contributions and development of strengths, and recognizing and supporting the need for employee engagement and participation in programs, policies and processes.

F. Success Indicators

NSE continues to monitor feedback from Government Employee Surveys and in 2008/09, used this feedback to inform our Winning Workplace Strategy. In 2009/10, NSE will review the most recent Government Employee Survey, completed in January 2009 and will make changes to our Winning Workplace Strategy, if appropriate.

5. Financial Results

Environment		
Program and Service Area	**2008/09 Estimate**	**2008/09 Actual**
	($thousands)	($thousands)
Ordinary Revenues	$1,737	$1,949
TCA Purchase Requirements	$1,355	$1,556
Administration	$959	$795
Policy/ Competitiveness and Compliance	$1,122	$3,706
Environmental Monitoring & Compliance	$11,877	$11,437
Environmental & Natural Areas Management	$27,838	$10,613
Information & Business Services	$1,756	$578
Climate Change	$1,055	$778
Total Gross Program Expenses	$44,607	$27,907*
Funded Staff (FTEs)	273	245

*The Department of Environment was $16.7 million under budget primarily due to reduced spending of $16.0 million from Eco Nova Scotia with a similar reduction in revenues. Salary savings if $1.8 million were partially offset by additional spending of $1.1 million on IT equipment and renovations.

6. Measuring Our Performance

Core Business Area 1: Environmental Protection and Natural Areas Management

The Outcome: Clean and safe drinking water
Nova Scotia Environment (NSE) is committed to sustainable management and protection of the environment. A desired outcome in meeting this commitment is clean and safe drinking water.

The Measure:

> *Percentage of population served by municipal water supplies that meet the health-based criteria for bacteriological quality, as stated in the Guidelines for Canadian Drinking Water Quality, at all times during the calendar year.*

What Does The Measure Tell Us?
Approximately 60 per cent of Nova Scotians obtain their drinking water from municipal water supplies. Health Canada, together with provincial health and environment ministries, has established the *Guidelines for Canadian Drinking Water Quality*. This document specifies the health-based criteria for a number of parameters, including bacteria content. NSE tracks the proportion of people serviced by municipal water supplies who have access to drinking water meeting the health-based criteria for bacteriological quality. This measure helps to provide an overall picture of access to quality drinking water. It also helps to gauge the effectiveness of *NSE Guidelines for Monitoring Public Drinking Water Supplies* and the *Water and Wastewater Facilities and Public Drinking Water Supplies Regulations*.

Where Are We Now?
NSE's boil water advisory database provides a tracking system for municipal water quality based on the health-based criteria for coliform bacteria (in the *Guidelines for Canadian Drinking Water Quality*). In 2008/09, 98.6 per cent of the population served by municipal water supplies received water meeting the health-based criteria for bacteriological quality at all times during the calendar year. This result shows a slight improvement over the results from the previous year.

Where Do We Want To Be?
Our on-going target is to maximize the percentage of population served by municipal water supplies that meet the health-based criteria for bacteriological quality. NSE is contributing to this outcome by implementing Nova Scotia's drinking water strategy, supporting development of municipal water supply protection plans, and enforcing the *Water and Wastewater Facilities and Public Drinking Water Supplies Regulations*, including NSE *Guidelines for Monitoring Public Water Supplies*.

The Outcome: Clean air

Clean air is an essential component of a healthy environment as well as contributing to human health. Many contaminants affect Nova Scotia's air quality and the department works actively to reduce them. Measuring the air emissions of sulphur dioxide, mercury, and nitrogen oxides helps to track the progress made toward this outcome, as described below.

The Measure #1:

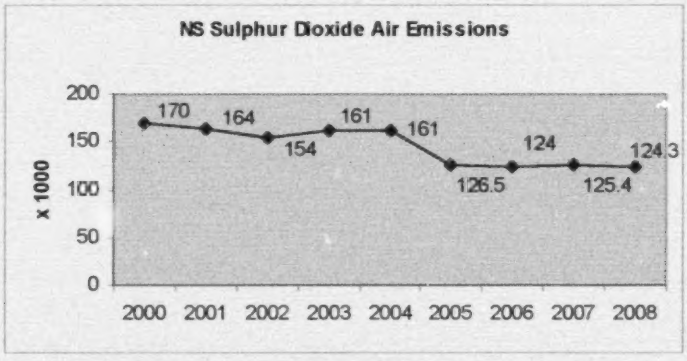
Annual total sulphur dioxide (SO_2) air emissions (tonnes) in the province.

What Does The Measure Tell Us?

Sulphur dioxide (SO_2) is a major contributor to acid rain and smog, and can have significant effects on human health if concentrations are elevated. Improved air quality is therefore partly dependent upon reduction in SO_2 emissions. Through reductions in SO_2 emissions, we are effectively working toward our clean air outcome.

Where Are We Now?

Sulphur dioxide emissions have fluctuated over the past six years (see graph below). Since 2005, there has been a steady decline in rates. In 2005, approximately 126,500 tonnes of SO_2 were emitted in the province, as a result of the amended *Air Quality Regulations*. In 2008, this has estimated to have to dropped 124,300 tonnes. This remains below the target of 141,750 tonnes.



*Rates are reported for calendar year, rather than fiscal.

** Rates for 2007 and 2008 are estimates.

Where Do We Want To Be?

The *Environmental Goals and Sustainable Prosperity Act* has established a target of reducing the sulphur dioxide emissions by fifty per cent of the 2001 levels, by the year 2010. Reductions will be accomplished by working with major industries and establishing a requirement to reduce SO_2 emissions through the use of lower sulphur fuels and process upgrades.

The Measure #2:

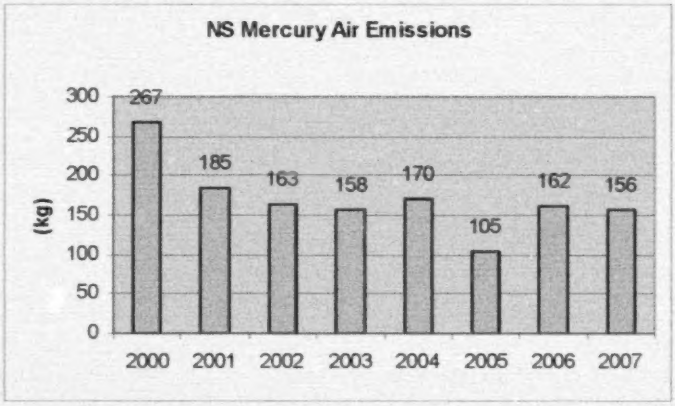
Annual total mercury (Hg) air emissions (kg) from electrical power generation in the province.

What Does The Measure Tell Us?

In Nova Scotia mercury emissions are produced primarily by thermal electrical power generation. Mercury has serious effects on both human and environmental health. Through reductions in total mercury emissions, we are effectively working toward our clean air outcome.

Where Are We Now?

Nova Scotia's electrical power generation sources emitted approximately 105 kg of mercury in 2005. In 2006, emissions increased to 162 kg of mercury. In 2007, emissions dropped to approximately 156 kg, which is both significantly less than the baseline measure of 267 kg in the year 2000, as well as meets the annual target of 168kg (see graph below). The rate for 2008 will not be available until Fall 2009.



(*Rates are reported for calendar year, rather than fiscal).

Where Do We Want To Be?

The *Air Quality Regulations* were amended in 2005 and established an annual mercury emission cap of 168 kg, commencing March 1, 2005. This target has been met in 2007. This target is consistent with the province's Energy Strategy and supports commitments in the Northeastern Governors and Eastern Canadian Premiers Climate Change Action Plan. Nova Scotia has adopted the new Canada-wide standard for mercury emissions from coal-fired power plants in 2006. As a result, the mercury cap will be reduced to 65 kg in 2010. The *Environmental Goals and Sustainable Prosperity Act* has established a target of reducing mercury emissions by seventy per cent of the 2001 levels, by the year 2010.

The Measure #3:

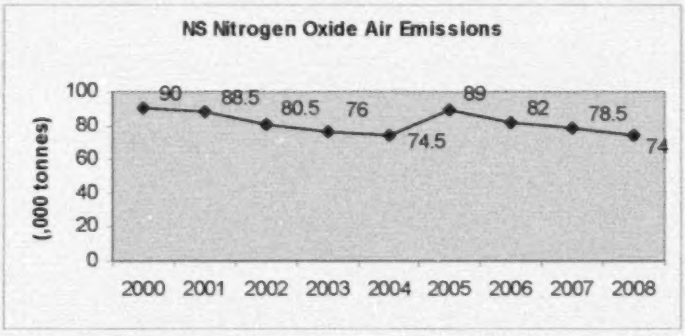
Annual total nitrogen oxide (NO_x) air emissions (tonnes) in the province.

What Does The Measure Tell Us?

In Nova Scotia, nitrogen oxide (NO_x) emissions are produced by a variety of sources, including thermal electrical power generation. industrial processes and the transportation sector. Nitrogen oxides are a pre-cursor to ground level ozone (smog) and acid rain, and therefore have serious environmental impacts. Through reductions in nitrogen oxide emissions, we are effectively working toward our clean air outcome.

Where Are We Now?

The NO_x data shows a steady decline from the 2000 base year measure of 90,000 tonnes to 74,500 tonnes in 2004. The emissions data for 2005 was previously reported by Environment Canada to be 72,000 tonnes; however, Environment Canada has since reported the correct amount to be 89,000 tonnes. Current data shows an estimated rate of 74,000 tonnes for 2008, which indicates a decrease of 17.8% or 18,000 tonnes from 2000 levels. This is very close to our target of a 20% reduction by 2009. It should be noted that the 2008 data will not be verified until the end of 2010, and therefore may have to be modified in the department's 2010-11 Accountability Report.



(*Rates are reported for calendar year, rather than fiscal).

Where Do We Want To Be?

The department is targeting a 20 per cent reduction in nitrogen oxide emissions (from 2000 base year levels) by 2009, which sets our target at 72,000 tonnes of NOx. Nova Scotia Power's annual NOx emissions cap of 21,365 tonnes will also take effect in 2009 and is the only regulated cap for NOx. This target for NSPI is also in EGSPA. Our strategy is to work with major industrial sources to reduce emissions, and require the use of low NOx burners for new and upgraded facilities. Federal initiatives on cleaner vehicles, engines and fuels will also contribute to NOx emission reductions.

The Outcome: Protected Natural Areas
Nova Scotia Environment is committed to sustainable management and protection of the environment and natural areas. A desired outcome in meeting this commitment is establishing and maintaining a network of protected natural areas.

The Measure:

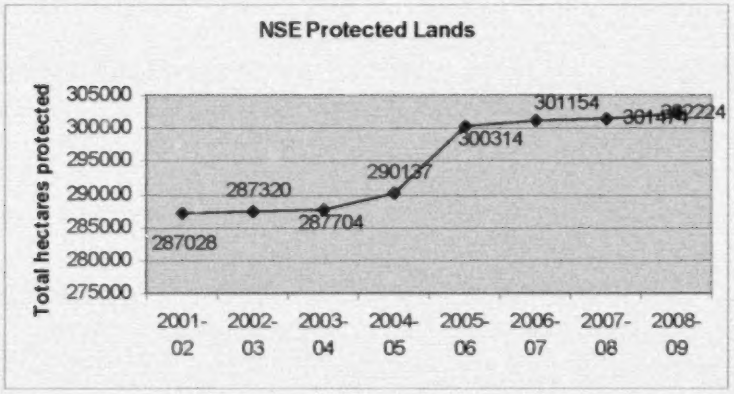
Total hectares of land protected through NSE program options.

What Does The Measure Tell Us?
Protected areas are representative examples of the province's natural landscapes as well as sites and features of outstanding natural value. The department supports a number of program options for protection, including:

1. Designation of Wilderness Areas and Nature Reserves;
2. Acquisition of department priority properties through partnership programs;
3. Protection of Crown lands in collaboration with the Department of Natural Resources; and
4. Voluntary private stewardship for significant lands.

Measuring the hectares of provincial land protected through department programs helps track the progress made in meeting provincial and national commitments to establish systems of protected areas. This measure also provides an indication of the state of biodiversity conservation in the province, as protected areas provide habitat for a wide range of species.

Where Are We Now?
In 2008/09 the department protected a total of 302,224 hectares throughout the province. This represents an increase of 15,196 ha compared to the base year measure (2001-02). The designation of five new nature reserves on land purchased from Bowater Mersey Paper Company, combined with the designation of the new Chignecto Isthmus Wilderness Area on lands owned by the Town of Amherst, account for the 1567-ha increase in protected land in 2008-09.



Where Do We Want To Be?
The *Environmental Goals and Sustainable Prosperity Act* has established the target to legally protecting twelve per cent of the total land mass of the Province by 2015. The department is proceeding with the process to designate additional Wilderness Areas and Nature Reserves. We have established a process with Department of Natural Resources and key partners through the Colin Steward Forest Forum to work towards a comprehensive system of protected areas to help meet this target. We will also continue to work with industry and land conservation groups to identify and protect new sites on private land.

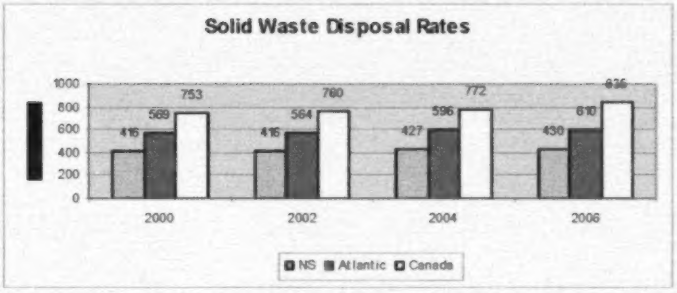
The Outcome: Shared responsibility for environmental management
Nova Scotia Environment is committed to sustainable management and protection of the environment and natural areas. Environmental management is most effective when responsibility is shared across all sectors and levels of society. Two measures are used to track progress in this regard. The first helps to gauge community participation in waste diversion. The second indicates Nova Scotia's success in keeping various materials out of landfills.

The Measure#1:

> *Annual municipal solid waste disposal rate per capita (Kg/person) compared with the regional and national disposal rates.*

What Does The Measure Tell Us?
Communities share responsibility for environmental management through efforts like managing solid waste responsibly. Nova Scotia is working actively to ensure community participation in reuse, recycling, composting, and other waste management initiatives. The average amount of waste discarded by each person per year is an indicator of the level of participation in waste diversion programs. Low disposal rates suggest that more material is being diverted from the waste stream, either through reduction at source, reuse, recycling or composting. By comparing disposal rates in Nova Scotia with those of the Atlantic region and Canada as a whole, we can assess Nova Scotia's performance, relative to the rest of Canada.

Where Are We Now?
Statistics Canada reports provincial solid waste disposal data every two years with a delay of approximately two years. As the graph indicates, the national per capita disposal rate in 2006 was 835 kg per person. In Nova Scotia, we disposed of just over half this amount in 2006, at 430 kg per person. The figures for 2008 should be available from Statistics Canada in 2010.



Source: Statistics Canada (*Rates are reported for calendar year, rather than fiscal).

Where Do We Want To Be?

We will continue to maintain a disposal rate well below the national disposal rate. The *Environmental Goals and Sustainable Prosperity Act* has committed to an even more ambitious disposal target of 300 kg of waste per capita by 2015. The department will support this goal through industry/product stewardship, promotion of best management practices, research and development, continued public education, and compliance with the Solid Waste-Resource Management Regulations.

The Measure #2:

Total number of categories of materials banned from disposal in Nova Scotia.

What Does The Measure Tell Us?

The number of categories of materials banned from disposal provides another measure of Nova Scotia's success in keeping materials out of landfills and using them as resources. Disposal bans require that waste materials are separated at source through municipal and private programs and also encourage the development of business opportunities in the province by ensuring a steady feedstock of "waste resources" for input into manufacturing. For example, Nova Scotia's ban on the disposal of corrugated cardboard ensures a constant supply of fibre for the production of linerboard by Minas Basin Pulp and Power.

Where Are We Now?

In 2008/09, the department reached its target of 21 categories of materials banned from landfills one year earlier than projected. In 2008/09, four categories of electronics were added to the list of already banned materials, achieving the target of 21. The categories are: computer scanners; audio and video playback and recording systems; telephones and fax machines; and cell phones and other wireless devices

Where Do We Want To Be?

The department's ultimate target is to establish 21 or more categories of materials banned from landfills by 2010. NSE has achieved this target a year earlier than projected by working with RRFB Nova Scotia to facilitate the establishment of new markets for materials through research and development, business innovation, and product stewardship programs. Additional disposal bans will be under consideration as the department develops a renewed solid waste resource

management strategy to achieve the province's 2015 disposal target. Household hazardous waste products and construction and demolition materials are examples of candidate items.

The Outcome: Proactive environmental management

Nova Scotia Environment is committed to sustainable management and protection of the environment and natural areas. Proactive environmental management - addressing potential environmental issues before the environment is damaged - is a desired outcome in meeting this commitment.

The Measure #1:

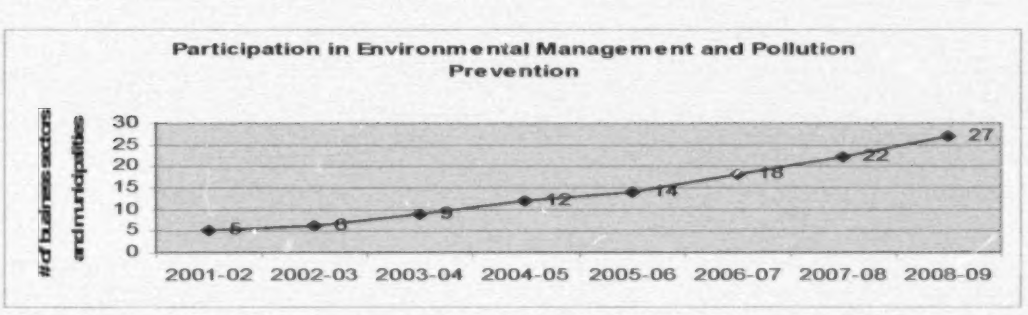
Total number of business sectors and municipalities participating with NSE in environmental management and/or pollution prevention programs and initiatives.

What Does The Measure Tell Us?

The department actively works with business sectors and other levels of government to incorporate sustainable environmental management into their operations through the use of pollution prevention plans, environmental management systems, best management practices, and other environmental management tools. This cooperative approach helps to minimize the long-term environmental impacts of business and municipal operations. The greater the number of business sectors and municipalities involved, the greater the environmental benefits.

Where Are We Now?

In 2008-09, the total number of sectors participating with NS Environment in environmental management and/or pollution prevention programs and initiatives increased to 27. This is an increase from 22 in 2007-08. We are continuing to provide support to a number of groups already counted in 07/08 and have added the following five organizations or groups: universities across the province, NSCAD and ABCO, HRM (adoption of janitorial procurement process).



Where Do We Want To Be?

The target to increase the number of business sectors and municipalities participating in these types of initiatives is no longer representative of the focus of the work being completed in the Pollution Prevention Program. For example, the department has assisted the Eco-Efficiency Centre in becoming the primary environmental technical assistance provider and program delivery agency for businesses in Nova Scotia, and as such our direct and regular involvement with business has been reduced. Additionally, programs and organizations have been developed

to deal with environmental performance in municipalities and government departments. Technical assistance in the areas of sustainable procurement and hazardous chemical reduction is becoming the primary focus for the Pollution Prevention Program.

The Measure #2:

Number of environmental home assessments completed through Environmental Home Assessment Program (EHAP); number of septic repairs completed with funding from EHAP.

What Does The Measure Tell Us?

Over 400,000 Nova Scotians rely on private wells and on-site septic systems. Experience has shown us that many rural homeowners are not properly maintaining their septic systems and wells by not pumping out septic tank at the 3-5 year intervals; not testing their drinking well water; and dumping harsh chemicals and other materials down the drain that is harmful to the long life of the septic system. This measure will help to track the progress made by the EHAP program in providing Nova Scotians with the information and/or financial support they need to make environmentally friendly decisions and to protect the health of their families.

Where Are We Now?

In 2008/09, year three of the EHAP program, 1700 home assessment visits were provided across rural Nova Scotia and 118 septic system repair grants were provided to lower income families. This is an increase from year one of the program, in which 400 home assessments and 70 septic system repair grants were provided.

Where Do We Want To Be?

The target is to complete 1000-2500 environmental home assessments per year in each year of the program. This will be accomplished through non-governmental organizations delivering the educational component of the program, with ongoing program management and evaluation by NSE.

The Outcome: Efficient and effective program delivery

Nova Scotia Environment is committed to sustainable management and protection of the environment and natural areas. A desired outcome in meeting this commitment is the delivery of efficient and effective environmental programs to clients. Two measures are used to track progress in this regard. The first measures the application of a risk-based inspection and auditing program and the second tracks average processing time for on-site sewage disposal system approvals.

The Measure #1:

Percentage of industrial facility approvals in operation for at least one year to which a risk based inspection and auditing (RBIA) program has been applied.

What Does The Measure Tell Us?

Regulatory compliance plays an important role in the department's ability to promote sustainable environmental management. The terms and conditions that are developed for approvals stipulate

discharge criteria for the facility that will adequately protect the receiving environment. The department targets inspections by using information on primary receptors, performance criteria, treatment controls, scope, and level of impact and reporting requirements as evaluation criteria to rate the facility's risk of negatively impacting the environment. Facilities with the highest rating are inspected more often to determine whether the facility is operating in compliance with the terms and conditions of the approval and whether the facility self-monitoring results accurately represent the discharges from the facility. This measure illustrates the progress made in applying this risk based inspection and auditing program to industrial facilities in Nova Scotia. It also provides an indication of the department's effectiveness in allocating inspection resources, as this program focuses an inspector's time on facilities that pose a higher risk to the environment.

Where Are We Now?
By the end of the fiscal year 2008/09, it was determined that approximately 88 per cent of industrial facilities that have been in operation for at least one year have had a risk based inspection and auditing program applied to them. Considerable progress has been made since first implementing this target. It should be noted that this target is a dynamic measure, since new facilities are approved each year, new risk assessments must be conducted each year. Therefore, although 90% may be achieved one year, the next year automatically begins with a deficit as the new facilities added the previous year must be assessed. The actual number of facilities subject to RBIA has increased by 435% since this measure was implemented. This reflects both increased tracking capability and industrial growth.

Where Do We Want To Be?
The target continues to be to apply a risk based inspection and auditing program to at least 90 per cent of industrial facility approvals. Progress will continue to be made in this area by validating data-based assessments at facilities and adhering to the schedule for risk based inspection audits.

In 2008, NSE commenced the development of the Activities Tracking System (ATS) which will take over the scheduling and tracking of inspections, enforcement and follow up activity from the current system, EIMAS. This will allow inspectors and managers to have better control and targeting of inspection efforts, and creates an opportunity to eliminate the site-specific risk assessments. Inspection schedules will be based on the characteristics of different types of activities rather than individual facility characteristics. Site specific issues and risks will be managed using ATS's enhanced capabilities to track specific problems and associated follow-up tasks, thus negating the need for site specific risk assessments. Implementation is targeted for July 2009 at which time the RBIA program will be discontinued. This will be the final year reporting on this measure as it will be replaced with one that reflects the new audit program.

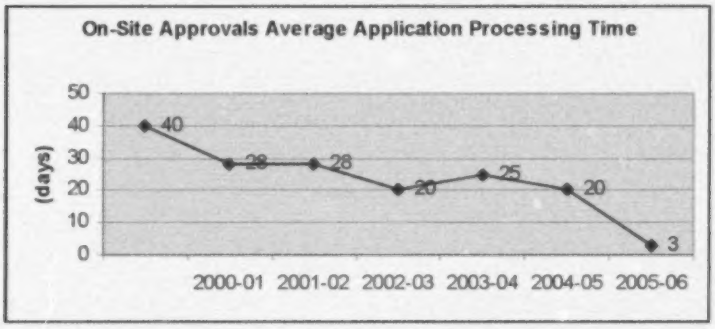
The Measure #2:

> *Average administrative time (days) to process applications for the approval of the installation of on-site sewage disposal systems.*

What Does The Measure Tell Us?
The department recognizes that while environmental protection is a priority, it must also provide timely service to its clients. When a proposed building project requires an on-site sewage

disposal system, municipal units require that an approval for the installation of the system is issued from the department prior to granting a building permit. Reduced turnaround times in the processing of on-site sewage disposal system approvals benefit developers and home builders by minimizing delays in obtaining their building permit and in construction.

Where Are We Now?
In 2008/09 the average administrative time to process applications for on-site sewage disposal systems was 2-3 days. This is a significant reduction from our 2000-01 base-year measure of 40 days, and well within our legislated time requirement of 60 days.



Where Do We Want To Be?
The target is to maintain average turn around time to 5-7 calendar days or less, which is in line with government standards for the turnaround times for applications. The department will continue to exceed this standard through ongoing process re-design and improvement.

Core Business Area 4: Competitiveness and Compliance Initiative

The Outcome: Quality tools, including regulatory tools

The Measure:
Compliance with a standardized, systematic development process

What Does The Measure Tell Us?
NSE has developed two processes to ensure that our regulatory and policy proposals are in compliance with the corporate Regulatory Management Policy. These processes establish a standardized, systematic method for staff to review issues and challenges facing the department and help them to determine appropriate courses of action. These two processes, the Policy Analysis Process and the Regulatory Tool Development Process, ensure that all the principles in the corporate Regulatory Management Policy are considered.

Where Are We Now?
In 2008/09, we set a target of 85% compliance. We also committed to delivering 2 training session for NSE staff on a standardized regulatory development process. We achieved 100% compliance with the process and we delivered two *Better Policy for Better Regulation* training

sessions, with the assistance of Treasury and Policy Board. Treasury and Policy Board has taken over delivering training for this initiative from this point forward, however NSE will assist them in their efforts.

Where Do We Want To Be?
We have set a target of 95% compliance with the standardized regulatory development process by 2010. We hope that, like in 2008/09, we exceed this target and have all our regulatory submissions comply with the process.

The Outcome: Easier for business to comply with our laws and reduce costs to improve competitiveness and compliance.

The Measure:

Reduced time spent by business on administrative requirements.

What Does The Measure Tell Us?
By calculating the time it takes for businesses to comply with our policies, procedures and programs, we can get a better sense of how easy or alternatively how difficult compliance with our laws is. Reducing time spent by business on administrative requirements is a commitment that government made under the Better Regulation Initiative. It is one of three measures government is using to assess the effort required to comply with laws in Nova Scotia.

Where Are We Now?
In 2008/09, we achieved a cumulative total of 15.5% reduction in time spent by business on administrative requirements. Our target for this year was 17%. Although we were just shy of our target for this year, we are on track to achieve the full 20% required of us by the end of 2010.

Where Do We Want To Be?
By the end of 2010, government has committed to reducing time spent by business on administrative requirements by 20%. To achieve this target, all departments are required to reduce their administrative burden by 20%. By reducing this time commitment, NSE will be making it easier for businesses to comply with our laws, while preserving environmental protections.

The Outcome: Improved compliance to create a level playing field and improved protection.

The Measure:

Percentage of inspectors with standardized inspection and investigation foundation training.

What Does The Measure Tell Us?
All inspectors in NSE need to have standardized inspection and investigation foundation training to ensure they are applying our laws consistently and appropriately. Variances in compliance expectations can confuse and frustrate clients and erode compliance with laws. The standardized

inspection and investigation foundation training was developed in 2006-07 and we began to implement it in June 2006. The training provides our inspectorate with base-level knowledge relative to inspections and investigations, with particular emphasis on the process as it migrates toward prosecution.

Where Are We Now?
Our target for 2008/09 was that 40% of inspectors would have completed standardized foundation training. By the end of 2008/09, we had significantly surpassed this target with a total of 49 of 52 of our inspectors (94%) being trained in the program.

Where Do We Want To Be?
Our ultimate goal is to have 100% of inspectors complete standardized foundation training by 2012. We are well on our way to achieving this goal.

The Outcome: Continual improvement of our regulatory programs

The Measure:

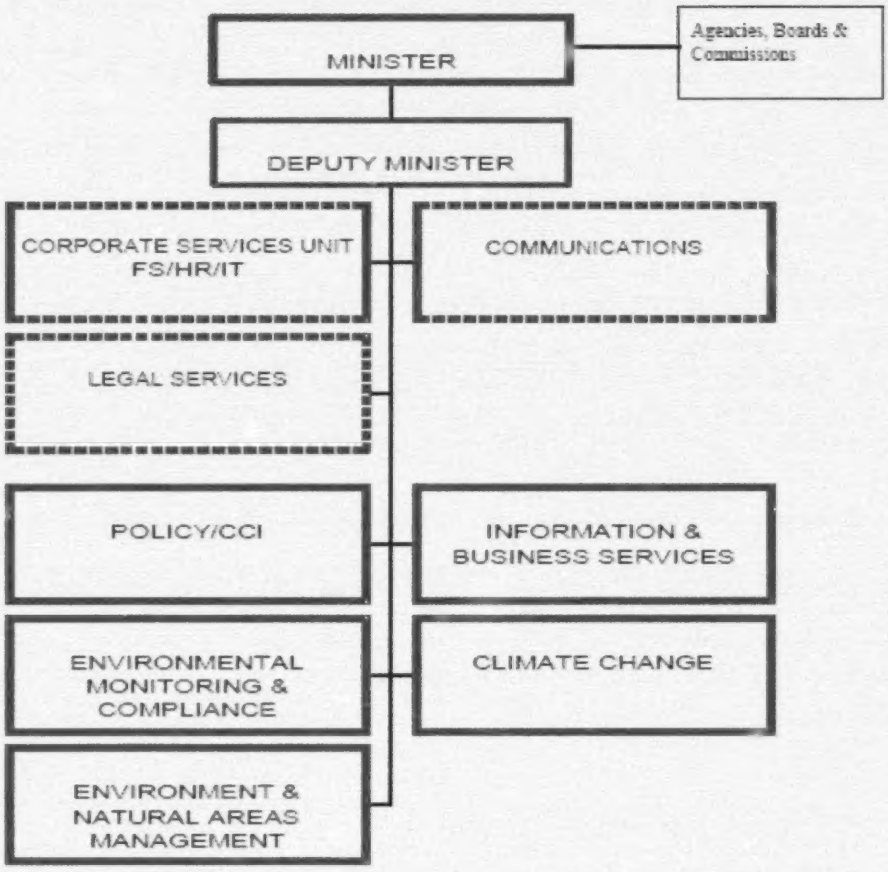
Percentage of regulatory programs with performance measures.

What Does The Measure Tell Us?
By putting performance measures in place in all our regulatory programs, NSE is committing to evaluating those programs to ensure they are achieving their desired results.

Where Are We Now?
Our target for 2008/09 was that 50% of our regulatory programs identify measures. In this past year, we have surpassed that target for all new regulatory programs as 100% have performance measures. However, there is still work to be done on the existing regulatory programs administered by the department.

Where Do We Want To Be?
Our goal for 2010 is that 90% of regulatory programs have performance measures. We will achieve this by developing an inventory of all our regulatory programs and evaluating what regulatory performance measures are currently in place and what work still needs to be done.

Appendix A – Organizational Chart



Appendix B - Agencies, Boards, Commissions and Tribunals

- Advisory Committee on the Protection of Special Places
- Environmental Assessment Board
- Environmental Trust Advisory Board
- On-Site Services Advisory Board
- Radiation Health Advisory Committee
- Resource Recovery Fund Board
- Round Table on the Environment and Sustainable Prosperity